

Date: Monday, 12/11/2006 12:53:55 PM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services  
 Job Number : 29845  
 Estimate Number : 11925  
 P.O. Number : *N/A*  
 This Issue : 12/11/2006 S.O. No. : *N/A*  
 Prsht Rev. : NC  
 First Issue : *N/A* Type : SMALL /MED FAB  
 Previous Run : *N/A*  
 Written By : *[Signature]*  
 Checked & Approved By : *[Signature]* 06 12 11  
 Comment : Est. B 99.11.11 Re-format EC

Drawing Name : TUBE ASSEMBLY  
 Part Number : D2003107  
 Drawing Number : UNDER REVIEW CB 06.12.11  
 Project Number : N/A SEE NOTE ON DWG  
 Drawing Revision : B  
 Material : *N/A*  
 Due Date : 1/15/2007 Qty: 5 Um: Each

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	M304TR0375W035	<i>16061T6T0375W035</i> 304 TUBING
		<i>Comment: Qty.: 1.0718 f(s)/Unit Total : 5.3592 f(s)</i>
		<i>304 TUBING</i>
		<i>Cut: 12.25" long as per Dwg D2003</i>
		<i>Material: 3/8"AE x 0.035" wall 6061-T6 tubing</i>
		<i>Batch: M17666</i>
2.0	M26506	Firesleeve-crkl .375IDia
		<i>Comment: Qty.: 1.1156 f(s)/Unit Total : 5.5781 f(s)</i>
		<i>Cut: 12.75" long as per Dwg D2003</i>
		<i>Material: M2650-6 Heat sleeve</i>
		<i>Batch: M17521</i>
3.0	MS208196D	Sleeve
		<i>Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)</i>
		<i>Sleeve</i>
		<i>Pick: 2</i>
	Qty Part Number	Description Batch
	2 MS208196D	<i>Sleeve M103044</i>
4.0	AN8186D	Nut
		<i>Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)</i>
		<i>Nut</i>
		<i>Pick: 2</i>
	Qty Part Number	Description Batch
	2 AN818-6D	<i>Nut M17651</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes Yes No No DQA: 20 Date: 87/07/02  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 12/11/2006 12:53:55 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 29845

Part Number: D2003107

Job Number:



Seq. #: Machine Or Operation:

Description :

5.0 D2182045 Heat Shrink 4.5" Long



Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)

Heat Shrink

Pick:

Qty	Part Number	Description	Batch
1	D2182-045	Heat shrink	121864

MF. 07-01-09

6.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Form tube as per template D2003-107

Assemble as per Dwg D2003

FF 07-01-02

→ MF. 07-01-09 (5)

7.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/01/11 (5)

8.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 51014

JB 07/01/12 (5) R7/01/12

9.0 QC21 FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/01/12 (5)

Job Completion



U 07/01/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**DART**



DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. B
DATE		D2003	
99.06.08		TITLE	
		SCALE	
		206 CABIN HEATER TUBE ASSEMBLIES NTS	
A	90.04.09	NEW ISSUE	
B	99.06.08	UPDATE PER TEMPLATES; ADD P/N'S; 0.025 TUBING NOW 0.035 (TSR1049)	

**RELEASED**

49.06.08 KE

Note: FLAT LENGTHS MAY BE  
INCORRECT. BEND PART  
#PER TOOL AND REPORT

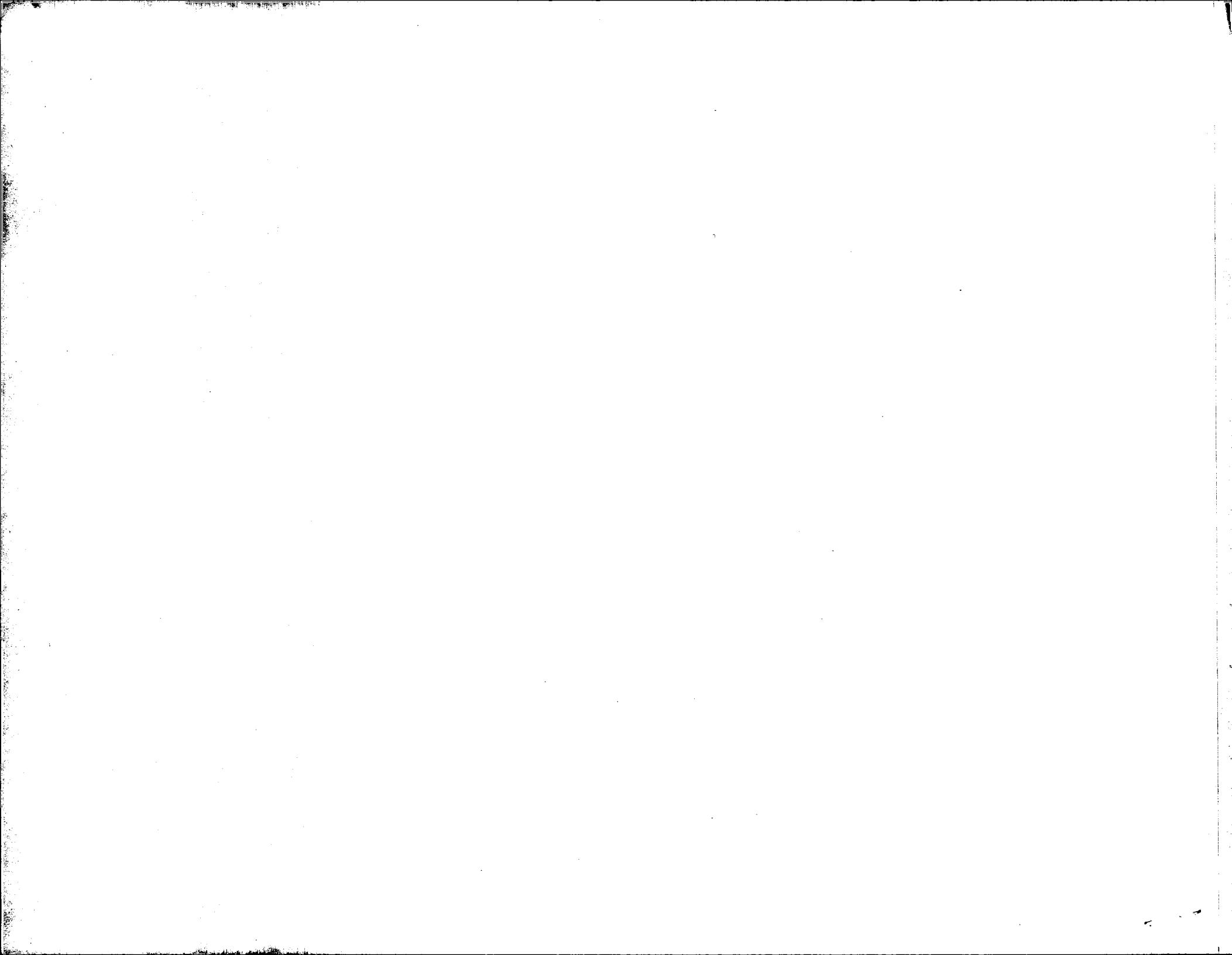
UNDER REVIEW CB 06.12.11

CC 08.21 CB

Some flat  
lengths wrong

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P/N	TEMPLATE	HEATSLEEVE LENGTH <sup>1</sup>	CUT LENGTH OF TUBE <sup>2</sup>	MS20819-8J SLEEVE			MS20819-8D SLEEVE			MS20819-6D SLEEVE			AN818-8J NUT			AN818-8D NUT			AN818-6D NUT			DESC.	MATERIAL <sup>4/6/7</sup>	VENDOR OR SPEC	ENGINEERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER NO. 29845
				MS20819-8J NUT	MS20819-8D NUT	AN818-8D NUT	MS20819-6D NUT	AN818-6D NUT	AN818-6D NUT																
D2003-001	T2003-001	5.2	6.00				2	2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W													WW-T-700/6	
D2003-003	T2003-003	7.3	8.12				2	2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-005	T2003-005	9.8	10.62				2	2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-007	T2003-007	20.0	19.63				2	2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-009	T2003-009	12.38	12.44				2	2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-011	T2003-011	33.31	32.38				2	2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-013	T2003-013	12.7	13.54				2	2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-015	T2003-015	17.2	18.00				2	2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-017	T2003-017	17.0	16.25				2	2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-019	T2003-019	9.8	10.62		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W														WW-T-700/6
D2003-021	T2003-021	N/A	2.25		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W														WW-T-700/6
D2003-023	T2003-023	4.5	5.33		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W														WW-T-700/6
D2003-025	T2003-025	9.8	10.60		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W														WW-T-700/6
D2003-027	T2003-027	7.25	7.38		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W														WW-T-700/6
D2003-029	T2003-029	17.2	18.00		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W														WW-T-700/6
D2003-031	T2003-031	14.6	15.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-033	T2003-033	29.75	29.62	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-035	T2003-035	24.7	27.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-037	T2003-037	24.81	23.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-039	T2003-039	34.0	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-041	T2003-041	6.0	5.88	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-043	T2003-043	11.7	10.75	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-045	T2003-045	3.50	2.44	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-047	T2003-047	5.56	5.56	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-049	T2003-049	33.2	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W														AISI 304
D2003-077	T2003-077	N/A	6.25					1	1	JET	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-101	T2003-101	13.25	13.13					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-600/6
D2003-103	T2003-103	12.38	12.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-600/6
D2003-105	T2003-105	10.75	10.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-600/6
D2003-107	T2003-107	12.75	12.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-600/6
D2003-109	T2003-109	8.25	8.125		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W														WW-T-600/6
D2003-111	T2003-111	4.75	4.625		2	2				TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W														WW-T-600/6
D2003-116	T2003-116	4.0								HEATSLEEVE	M2650-20 CRINKLE-SOFT														STRATOFLEX
D2003-120	T2003-120	4.0								HEATSLEEVE	M2650-16 CRINKLE-SOFT														STRATOFLEX
D2003-14	T2003-14	4.0								HEATSLEEVE	M2650-14 CRINKLE-SOFT														STRATOFLEX
D2003-16	T2003-16	4.0								HEATSLEEVE	M2650-16 CRINKLE-SOFT														STRATOFLEX
D2003-205	T2003-205	9.75	9.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6
D2003-207	T2003-207	3.75	3.75					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W														WW-T-700/6



**DART**

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. B
DATE	99.06.08	TITLE	SHEET 2 OF 2 SCALE

**RELEASED**  
49.06.09 KE**UNDER REVIEW** CB

06.12.11

~~06.08.21 CB  
Some flat lengths  
not wrong~~**Notes:**

- (1) USE STRATOFLEX M2650-6 CRINKLE-SOFT HEATSLEEVE.
- (2) TUBING ASSEMBLIES TO BE CUT AND BENT IN ACCORDANCE WITH TEMPLATES.
- (3) TUBES TO BE FLARED 30° TO MATE WITH FITTINGS MADE TO MS33514.
- (4) ENSURE SEAMLESS TUBING IS USED.
- (5) INSTALL HEATSLEEVE OVER ALL TUBES WITH A DESIGNATED LENGTH OF HEATSLEEVE PER THE PARTS LIST.
- (6) 5052 (WW-T-700/4) TUBING MAY BE SUBSTITUTED WHEN 6061 TUBING IS NOT AVAILABLE.
- (7) 0.049 WALL THICKNESS CRES TUBING MAY BE SUBSTITUTED WHEN 0.035 IS NOT AVAILABLE.
- (8) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 29845

